

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method of compressing and recording ~~data of image~~ information as a plurality of video object units on a ~~read-only~~ DVD recording medium according to a DVD-video format according to a decoding and reproducing unit, the method comprising:

performing compression of inputted image data;

generating additional information about the inputted image data; and

multiplexing, in each video object unit, an additional information block that includes the additional information generated in the generating step at a block position immediately after a pack that contains reproduction management information of the inputted image data and immediately before a group of blocks that include compressed image information processed by compression encoding through the use of only image information in the decoding and reproducing unit, and recording the additional information block on the recording medium,

wherein the additional information that is multiplexed and recorded on the recording medium includes at least application information, recording time information, and camera information, and the application information includes a vendor name as a manufacturer of a product, and a product name; [[and]]

each video object unit is a unit of reading and writing, and includes (1) the pack that contains reproduction management information of the inputted image data, (2) the additional information block, and (3) the group of blocks that include compressed image information

processed by compression encoding through the use of only image information in the decoding and reproducing unit; and

wherein said additional information includes at least information about the condition and time of obtaining the image data, and said additional information block and at least one of the corresponding group of blocks includes a same presentation time stamp (PTS), which is time management information about reproduction output of the information in the decoding and reproducing unit.

2. (Previously Presented) The method according to claim 1, wherein the additional information comprises one or more of the blocks.

3. (Previously Presented) The method according to claim 2, wherein the additional information block is multiplexed at a predetermined block position and is recorded on the recording medium.

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

7. (Currently Amended) A recording apparatus that records compressed image data as a plurality of video object units on a ~~read-only~~ DVD recording medium according to a DVD-video format according to a decoding and reproducing unit, the apparatus comprising:

data compression means for performing compression encoding of inputted image data;

an additional information generation means for generating additional information about the inputted image data; and

recording control means for multiplexing, in each video object unit, an additional information block that includes the additional information generated by the additional information generation means at a block position immediately after a pack that contains reproduction management information of the inputted image data and immediately before a group of blocks that include compressed image information processed by compression encoding through the use of only image information in the decoding and reproducing unit, and recording the additional information block on the recording medium,

wherein the additional information that is multiplexed and recorded on the recording medium includes at least application information, recording time information, and camera information, and the application information includes a vendor name as a manufacturer of a product, and a product name; [[and]]

each video object unit is a unit of reading and writing, and includes (1) the pack that contains reproduction management information of the inputted image data, (2) the additional information block, and (3) the group of blocks that include compressed image information processed by compression encoding through the use of only image information in the decoding and reproducing unit; and

wherein said additional information includes at least information about the condition and time of obtaining the image data, and said additional information block and at least one of the corresponding group of blocks includes a same presentation timestamp (PTS), which is time management information about reproduction output of the information in the decoding and reproducing unit.

8. (Previously Presented) The recording apparatus according to claim 7, wherein the additional information comprises one or more of the blocks.

9. (Previously Presented) The recording apparatus according to claim 8, wherein the recording control means multiplexes the additional information block at a predetermined block position and records the additional information block on the recording medium.

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Currently Amended) The reproducing method ~~recording medium~~ according to claim 19, wherein the additional information comprises one or more of the blocks.

15. (Currently Amended) The reproducing method ~~recording medium~~ according to claim 19, wherein the additional information block is multiplexed and recorded at a predetermined block position in the read/write unit.

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Currently Amended) A reproducing method, comprising:

reading compressed image information according to a decoding and reproducing unit from a ~~read-only~~ DVD recording medium according to a DVD-video format, decompressing the compressed image information, and reproducibly outputting image information according to the decoding and reproducing unit, wherein the recording medium records inputted image data as a plurality of video object units in a data compression manner according to the decoding and reproducing unit, and records an additional information block, the additional information block obtained by multiplexing, in each video object unit, an additional information block that includes additional information generated by an additional information generation means at a block position immediately after a pack that contains reproduction management information of the inputted image data and immediately before a group of blocks including compressed image information processed by compression encoding through the use of only image information in the decoding and reproducing unit and recording the additional information block on the recording medium, wherein the additional information that is multiplexed and recorded on the recording medium includes at least application information, recording time information, and camera information, and the application information includes a vendor name as a manufacturer of a product, and a product name; and

extracting the additional information contained in the decoding and reproducing unit and reproducibly outputting the additional information in synchronization with reproduction output of the image information according to the decoding and reproducing unit,

wherein each video object unit is a unit of reading and writing, and includes (1) the pack that contains reproduction management information of the inputted image data, (2) the additional information block, and (3) the group of blocks that include compressed image information processed by compression encoding through the use of only image information in the decoding and reproducing unit; and

wherein said additional information includes at least information about the condition and time of obtaining the image data, and said additional information block and at least one of the corresponding group of blocks includes a same presentation timestamp (PTS), which is time management information about reproduction output of the information in the decoding and reproducing unit.

20. (Currently Amended) A reproducing method, comprising:

reading compressed image information according to a decoding and reproducing unit from a ~~read-only~~ DVD recording medium according to a DVD-video format, decompressing the compressed image information, and reproducibly outputting image information according to the decoding and reproducing unit, wherein the recording medium records inputted image data as a plurality of video object units in a data compression manner according to the decoding and reproducing unit, and records an additional information block, the additional information block obtained by multiplexing, in each video object unit, an additional information block that includes additional information generated by an additional information generation means at a block position immediately after a pack that contains reproduction management information of the inputted image data and immediately before a group of blocks including compressed image information processed by compression encoding through the use of only image information in the decoding and reproducing unit and recording the additional information block on the recording medium, wherein the additional information

that is multiplexed and recorded on the recording medium includes at least application information, recording time information, and camera information, and the application information includes a vendor name as a manufacturer of a product, and a product name; and

extracting the additional information contained in the decoding and reproducing unit, reproducing the additional information in synchronization with reproduction output of the image information according to the decoding and reproducing unit, and using the reproduced additional information to control image information according to the decoding and reproducing unit,

wherein each video object unit is a unit of reading and writing, and includes (1) the pack that contains reproduction management information of the inputted image data, (2) the additional information block, and (3) the group of blocks that include compressed image information processed by compression encoding through the use of only image information in the decoding and reproducing unit; and

wherein said additional information includes at least information about the condition and time of obtaining the image data, and said additional information block and at least one of the corresponding group of blocks includes a same presentation timestamp (PTS), which is time management information about reproduction output of the information in the decoding and reproducing unit.

21. (Currently Amended) A reproducing method, comprising:

reading compressed image information according to a decoding and reproducing unit from a ~~read-only~~ DVD recording medium according to a DVD-video format, decompressing only encoded image information in the decoding and reproducing unit, wherein the encoded image information belongs to the read and compressed image information and is processed by compression encoding through the use of only image information in the decoding and

reproducing unit, and reproducibly outputting the encoded image information in the decoding and reproducing unit repeatedly for the number of decoding and reproducing units fewer than the number of decoding and reproducing units, wherein the recording medium records inputted image data as a plurality of video object units in a data compression manner according to the decoding and reproducing unit and records an additional information block, the additional information block obtained by multiplexing, in each video object unit, an additional information block that includes additional information generated by an additional information generation means at a block position immediately after a pack that contains reproduction management information of the inputted image data and immediately before a group of blocks including compressed image information processed by compression encoding through the use of only image information in the decoding and reproducing unit and recording the additional information block on the recording medium, wherein the additional information that is multiplexed and recorded on the recording medium includes at least application information, recording time information, and camera information, and the application information includes a vendor name as a manufacturer of a product, and a product name; and

extracting the additional information contained in the decoding and reproducing unit and reproducibly outputting the additional information in synchronization with reproduction output of the encoded image information in the decoding and reproducing unit,

wherein each video object unit is a unit of reading and writing, and includes (1) the pack that contains reproduction management information of the inputted image data, (2) the additional information block, and (3) the group of blocks that include compressed image information processed by compression encoding through the use of only image information in the decoding and reproducing unit; and



wherein said additional information includes at least information about the condition and time of obtaining the image data, and said additional information block and at least one of the corresponding group of blocks includes a same presentation timestamp (PTS), which is time management information about reproduction output of the information in the decoding and reproducing unit.

22. (Currently Amended) A reproducing apparatus, comprising:

read means for reading compressed image information according to a decoding and reproducing unit from a ~~read-only~~ DVD recording medium according to a DVD-video format, wherein the recording medium records inputted image data as a plurality of video object units in a data compression manner according to a decoding and reproducing unit, and records an additional information block, the additional information block obtained by multiplexing, in each video object unit, an additional information block that includes additional information generated by an additional information generation means at a block position immediately after a pack that contains reproduction management information of the inputted image data and immediately before a group of blocks including compressed image information processed by compression encoding through the use of only image information in the decoding and reproducing unit and recording the additional information block on the recording medium, wherein the additional information that is multiplexed and recorded on the recording medium includes at least application information, recording time information, and camera information, and the application information includes a vendor name as a manufacturer of a product, and a product name;

separation means for separating the compressed image information and the additional information from the read means;

means for decompressing the compressed image information from the separation means;

means for reproducibly outputting the decoding and reproducing unit information out of the decompressed image information; and

means for reproducibly outputting the additional information from the separation means in synchronization with reproduction output of the decoding and reproducing unit information,

wherein each video object unit is a unit of reading and writing, and includes (1) the pack that contains reproduction management information of the inputted image data, (2) the additional information block, and (3) the group of blocks that include compressed image information processed by compression encoding through the use of only image information in the decoding and reproducing unit; and

wherein said additional information includes at least information about the condition and time of obtaining the image data, and said additional information block and at least one of the corresponding group of blocks includes a same presentation timestamp (PTS), which is time management information about reproduction output of the information in the decoding and reproducing unit.

23. (Currently Amended) A reproducing apparatus, comprising:

means for reading compressed image information according to a decoding and reproducing unit from a ~~read-only~~ DVD recording medium according to a DVD-video format;

means for decompressing the compressed image information; and

means for reproducibly outputting image information according to the decoding and reproducing unit, wherein the recording medium records inputted image data as a plurality of

video object units in a data compression manner according to the decoding and reproducing unit, and records an additional information block, the additional information block obtained by multiplexing, in each video object unit, an additional information block that includes additional information generated by an additional information generation means at a block position immediately after a pack that contains reproduction management information of the inputted image data and immediately before a group of blocks including compressed image information processed by compression encoding through the use of only image information in the decoding and reproducing unit and recording the additional information block on the recording medium, wherein the additional information that is multiplexed and recorded on the recording medium includes at least application information, recording time information, and camera information, and the application information includes a vendor name as a manufacturer of a product, and a product name; and

wherein the apparatus extracts the additional information contained in the decoding and reproducing unit, reproduces the additional information in synchronization with reproduction output of the image information according to the decoding and reproducing unit, and uses the reproduced additional information to control image information according to the decoding and reproducing unit; [[and]]

each video object unit is a unit of reading and writing, and includes (1) the pack that contains reproduction management information of the inputted image data, (2) the additional information block, and (3) the group of blocks that include compressed image information processed by compression encoding through the use of only image information in the decoding and reproducing unit; and

wherein said additional information includes at least information about the condition and time of obtaining the image data, and said additional information block and at least one of the corresponding group of blocks includes a same presentation timestamp (PTS), which is

time management information about reproduction output of the information in the decoding and reproducing unit.

24. (Currently Amended) A reproducing apparatus, comprising:

read means for reading compressed image information according to a decoding and reproducing unit from a ~~read-only~~ DVD recording medium according to a DVD-video format, wherein the recording medium records inputted image data as a plurality of video object units in a data compression manner according to the decoding and reproducing unit, and records an additional information block, the additional information block obtained by multiplexing, in each video object unit, an additional information block that includes additional information generated by an additional information generation means at a block position immediately after a pack that contains reproduction management information of the inputted image data and immediately before a group of blocks including compressed image information processed by compression encoding through the use of only image information in the decoding and reproducing unit and recording the additional information block on the recording medium, wherein the additional information that is multiplexed and recorded on the recording medium includes at least application information, recording time information, and camera information, and the application information includes a vendor name as a manufacturer of a product, and a product name;

separation means for separating the compressed image information and the additional information from the read means;

means for decompressing only encoded image information in the decoding and reproducing unit, wherein the encoded image information belongs to the compressed image information from the separation means and is processed by compression encoding through the use of only image information in the decoding and reproducing unit,

means for reproducibly outputting the decompressed encoded image information in the decoding and reproducing unit repeatedly for the number of decoding and reproducing units fewer than the number of decoding and reproducing units; and

means for reproducibly outputting the additional information from the separation means in synchronization with reproduction output of the encoded image information in the decoding and reproducing unit,

wherein each video object unit is a unit of reading and writing, and includes (1) the pack that contains reproduction management information of the inputted image data, (2) the additional information block, and (3) the group of blocks that include compressed image information processed by compression encoding through the use of only image information in the decoding and reproducing unit; and

wherein said additional information includes at least information about the condition and time of obtaining the image data, and said additional information block and at least one of the corresponding group of blocks includes a same presentation timestamp (PTS), which is time management information about reproduction output of the information in the decoding and reproducing unit.

25. (Currently Amended) An imaging apparatus, comprising:

an imaging element;

an imaging optical system for forming an object image on the imaging element;

data compression means for performing compression encoding of image data inputted from the imaging element as a plurality of video object units;

an additional information generation means for generating additional information about the image data inputted from the imaging element; and

recording control means for multiplexing, in each video object unit, an additional information block that includes the additional information generated by the additional information generation means at a block position immediately after a pack that contains reproduction management information of the inputted image data and immediately before a group of blocks including compressed image information processed by compression encoding through the use of only image information in the decoding and reproducing unit, and recording the additional information block on a ~~read-only~~ DVD recording medium according to a DVD-video format,

wherein the additional information that is multiplexed and recorded on the recording medium includes at least application information, recording time information, and camera information, and the application information includes a vendor name as a manufacturer of a product, and a product name; [[and]]

each video object unit is a unit of reading and writing, and includes (1) the pack that contains reproduction management information of the inputted image data, (2) the additional information block, and (3) the group of blocks that include compressed image information processed by compression encoding through the use of only image information in the decoding and reproducing unit; and

wherein said additional information includes at least information about the condition and time of obtaining the image data, and said additional information block and at least one of the corresponding group of blocks includes a same presentation timestamp (PTS), which is time management information about reproduction output of the information in the decoding and reproducing unit.

26. (Previously Presented) The imaging apparatus according to claim 25, wherein the additional information comprises one or more of the blocks.

27. (Previously Presented) The imaging apparatus according to claim 26, wherein the recording control means multiplexes the additional information block at a predetermined block position and records the additional information block on the recording medium.

28. (Cancelled)

29. (Cancelled)

30. (Cancelled)

31. (Previously Presented) The method of claim 1, wherein the multiplexing step comprises multiplexing only one additional information block in a video object unit corresponding to each group of blocks.

32. (Previously Presented) The method of claim 1, wherein the additional information includes an additional recording identifier.

33. (Cancelled)

34. (Previously Presented) The recording apparatus of claim 7, wherein the additional information includes an additional recording identifier.

35. (Cancelled)

36. (Previously Presented) The imaging apparatus of claim 25, wherein the additional information includes an additional recording identifier.

37. (Cancelled)

38. (Previously Presented) The method of Claim 1, wherein the recording time information includes time zone information.

39. (Previously Presented) The method of Claim 1, wherein the application information includes an application identifier and manufacturer information, in addition to the vendor name and the product name.

40. (Previously Presented) The method of Claim 1, wherein each video object unit includes exactly one navigation pack containing the reproduction management information and exactly one additional information block.